

## VINEETH KUMAR T.V, PhD

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### OBJECTIVE

To use my knowledge as a source of learning for others, this would give me, job satisfaction and also would provide means for livelihood.

### EDUCATION

<b>Ph.D</b>	Zoology (University of Kerala)-May 2019 Studies on the Mode of action of Some Frog Skin Antimicrobial peptides Rajiv Gandhi centre for biotechnology Thiruvananthapuram, Kerala, India.
<b>CSIR-JRF(NET)</b>	<b>All India Rank 44 – December 2012</b>
<b>KSCSTE Fellowship</b>	Kerala state council for science technology and environment <b>Research fellowship Life Sciences – December 2010</b>
<b>M.Sc</b>	Zoology (Environmental science) – May 2009 Sacred Heart College, Thevara, Kochi, Kerala, India. M. G. University, Kottayam Marks- <b>82%(Rank-III)</b>
<b>B.Sc</b>	Zoology (Botany, Chemistry) – March 2007 The Cochin College, Mattanchery, Kochi M. G. University, Kottayam, Kerala, India. Marks- <b>94%</b>
<b>HSE</b>	Science (Biology, Maths) – March 2004 SDPYBHSS, Palluruhy, Kochi Kerala State Higher Secondary Board Marks- <b>75%</b>
<b>SSLC</b>	- March 2002 CCPLMAIGHS, Perumanur, Kochi Kerala State School Leaving Certificate Marks- <b>80%</b>

## WORK EXPERIENCE

- **Research Guide in Zoology (2022-present)**. Mahatma Gandhi University, Kottayam
- **Assistant Professor in Zoology (2015-present)**, The Cochin College, Cochin 682002
- **Senior Research Fellow (2013-2015)** Kerala state council for science technology and environment (KSCSTE) **Research Fellowship**
- **Junior Research Fellow (2011-2013)** Kerala state council for science technology and environment (KSCSTE) **Research Fellowship**
- **5 years experience (2010-2015)**: Part time teaching faculty at **Research World, CSIR-UGC, GATE, ICMR : Coaching Centre**, Atlantis Junction, Cochin-15

## HONORS/AWARDS

1. Dr Vineeth Kumar T.V, **SK Mahajan Award 2021**, for exemplary contribution to ‘Research and Development’ in establishing model systems in CUBE, **CUBE- TIFR, Mumbai**
2. Dr Vineeth Kumar T.V, **Anil Sadgopal Award 2020**, for Popularization of Science & Contribution to Science Outreach, **CUBE- TIFR, Mumbai**.
3. Dr Vineeth Kumar T.V, **DD Kosami Teacher Mentor Award 2019**, for contribution to collaborative biology research, **CUBE- TIFR, Mumbai**.
4. **Vineeth Kumar T V** was awarded the **best paper presentation** for ‘Frog Skin Host Defense peptides as Antimicrobial’ at the International conference on Multidisciplinary Research at St Albert s College, Cochin, 11<sup>th</sup> January 2019.
5. **Millennium Zoology Best UG Project Award 2018**, Evaluation of the Olfactory Perception of Amputated and Regenerated Tentacles of African snail
6. **Millennium Zoology Best UG Project Award 2016**, Learning Ability of Some Fresh Water Aquarium Fishes
7. **Best Paper and Presentation award**: International conference on Ecosystem Conservation, Climate Change and Sustainable Development (**ECOCASAD: 2013**)
8. **CSIR-JRF(NET): Rank 44 – December 2012**
9. Kerala state council for science technology and environment (KSCSTE) **Research Fellowship 2010 in Life Sciences**

10. **Third rank in Zoology**, May 2009, Mahatma Gandhi University, Kottayam.
11. **KSCSTE Students project Fellowship** (D. O. No. 040/ SRSSP/ 2008/ CSTE).
12. **Best MSc project Award**, Millennium Zoology (ISSN-0973-1946)(November 2010)
13. **Best Paper and Presentation Award: “Animal Science Congress”** , Zoological Society of Kerala (February 2010)
14. **Best BSc project Award**, Millennium Zoology (ISSN-0973-1946) (November 2007)

### PROFESSIONAL TRAINING

1. SUMMER SCHOOL: ‘Comparative Genomics and Proteomics in Drug Discovery, May 30- June 13<sup>th</sup> 2011, Organized by UGC-NRCBS, Madurai Kamaraj University.
2. ANIMAL USERS TRAINING: Animal research Facility, Rajiv Gandhi Centre for Biotechnology, Trivandrum.

### Patent

**Vineethkumar, T.V.** and George, S. India Patent Application No. 201641020429 for therapeutic compositions from the brevinin-1 family of peptides and uses thereof.  
**Date of Filing:** 15th June 2016.

### Peer Reviewer

	Journal Name	Year	No of publication reviewed
1	3Biotech (Springer)	2023	1
2	Scientific Reports (Nature)	2022	1
3	International Journal of Peptide Research and Therapeutics (IJPR) (Springer)	2018	1

### List of Publications

Siva Sankari, G., James, R., Payva, F., Sivaramakrishnan, V., **Vineeth Kumar, T.V.**, Kanchi, S. and Santhy, K.S., 2023. Computational analysis of sodium-dependent phosphate transporter SLC20A1/PiT1 gene identifies missense variations C573F, and T58A as high-risk deleterious SNPs. *Journal of Biomolecular Structure and Dynamics*, pp.1-15. <https://doi.org/10.1080/07391102.2023.2218939>

1. Shyla, G., Krishnan, S., Mohan, A., Shanmugam, G., **Vineethkumar, T.V.**, Sreekumar, J., Sivakumar, K.C., Vasudevan, D., Nori, S.R.C., Sathi, S.N. and George, S., 2021. SSTP1, A Host Defense Peptide, Exploits the Immunomodulatory Il6 Pathway to Induce Apoptosis in Cancer Cells. *Front. Immunol.* 12:740620. <https://doi.org/10.3389/fimmu.2021.740620>
2. Lekshmipriya, P., **Vineethkumar, T.V.**, Joseph, J., Asha, R., Thomas, S. and George, S., 2021. Synergistic Effect of Frog Skin Antimicrobial Peptides in Combination with Antibiotics Against Multi host Gram-Negative Pathogens. *International Journal of Peptide Research and Therapeutics*, 27(2), pp.1529-1540. <https://doi.org/10.1007/s10989-021-10189-w>
3. Subramanian, M.V., Smitha, N.R., **TV, Vineeth Kumar.**, Abraham, S., Muhammed, M. and Ashraf, R., 2020. BIOMAG-Community Based Solid Waste Management through Re-Cycling and Up-Cycling In an Adopted Ward Of Corporation of Kochi, Kerala, India. *American Journal of Multidisciplinary Research & Development (AJMRD)*, 2(12), pp.01-08.
4. Kavya Vinayachandran, Arpitha M R, Manju V Subramanian, Smitha N R, **Vineeth Kumar T V**, Princy Varghese., 2020, Isolation And Identification Of Fungi Associated With Local Fruits And Vegetables From Kochi And Mattancherry Market, India. *Bioscience Discovery*, 11(4):239-248
5. Shyla, G., **Vineethkumar, T.V.**, Arun, V., Divya, M.P., Thomas, S. and George, S., 2019. Functional characterization of two novel peptides and their analogs identified from the skin secretion of *Indosylvirana aurantiaca*, an endemic frog species of Western Ghats, India. *Chemoecology*, 29(5), pp.179-187. <https://doi.org/10.1007/s00049-019-00287-z>
6. **Vineeth Kumar, T.**, Asha, R. and George, S., 2019. Identification and functional characterisation of Esculentin-2 HYba peptides and their C-terminally amidated analogs from the skin secretion of an endemic frog. *Natural product research*, pp.1-5. <https://doi.org/10.1080/14786419.2019.1644636>
7. **Vineeth Kumar, T.**, Asha, R. and George, S., 2019. Investigations on the membrane interaction of C-terminally amidated esculentin-2 HYba1 and 2 peptides against bacteria. *Animal biotechnology*, pp.1-10. <https://doi.org/10.1080/10495398.2019.1668402>
8. **Vineethkumar, T.V.**, Gopal, S. and George, S., 2018. Smallest lectin-like peptide identified from the skin secretion of an endemic frog *Hydrophylax bahuvistara*. *Acta Biologica Hungarica*, 69(1), pp110-113 . <https://doi.org/10.1556/018.68.2018.1.9>

9. Holthausen, D.J., Lee, S.H., **Vineethkumar, T.V.**, Bouvier, N.M., Krammer, F., Ellebedy, A.H., Wrammert, J., Lowen, A.C., George, S., Pillai, M.R. and Jacob, J., 2017. An Amphibian Host Defense Peptide Is Virucidal for Human H1 Hemagglutinin-Bearing Influenza Viruses. *Immunity*, 46(4), pp.587-595. <https://doi.org/10.1016/j.immuni.2017.03.018>
10. **Vineethkumar, T.V.** and George, S., 2017. A review of the mechanism of action of amphibian antimicrobial peptides focusing on peptide-membrane interaction and membrane curvature. *Current Protein and Peptide Science*, 18(12), pp.1263-1272. <https://doi.org/10.2174/1389203718666170710114932>
11. **Vineethkumar, T.V.**, Asha, R., Shyla, G. and George, S., 2017. Studies on the Mode of Membrane Interaction of C-terminally Amidated Brevinin1 HYba1 and 2 Peptides against Bacteria. *International Journal of Peptide Research and Therapeutics*, pp.1-13. <https://doi.org/10.1007/s10989-017-9598-0>
12. **Vineethkumar, T.V.**, Asha, R., Shyla, G. and George, S., 2017. Post-translationally modified frog skin-derived antimicrobial peptides are effective against *Aeromonas sobria*. *Microbial Pathogenesis*, 104, pp.287-288. <https://doi.org/10.1016/j.micpath.2017.01.052>
13. **Vineethkumar, T.V.**, Asha, R., Shyla, G. and George, S., 2017. Identification and characterization of novel host defense peptides from the skin secretion of the fungoid frog, *Hydrophylax bahuvistara* (Anura: Ranidae). *Chemical biology & drug design*. 92(2):1409-1418. <https://doi.org/10.1111/cbdd.12937>
14. **Vineethkumar, T.V.**, Gopal, S. and George, S., 2016. First report of Lividin and Spinulosain peptides from the skin secretion of an Indian frog. *Acta Biologica Hungarica*, 67(1), pp.121-124. <https://doi.org/10.1556/018.67.2016.1.10>
15. **Vineethkumar, T.V.**, Holthausen, D., Jacob, J. and George, S., 2015. Host defense peptides from Asian frogs as potential clinical therapies. *Antibiotics*, 4(2), pp.136-159. <https://doi.org/10.3390/antibiotics4020136>
16. **TV, Vineeth Kumar.**, James, R. and Prema, A.K., Research Article A Pilot Study on Microbial After growths in the Municipal Water Supply from Aluva to West Kochi. 2014, Sch. Acad. J. Biosci., 2(12B): 913-919
17. Remya, J. and **Vineeth, Kumar T V .**, 2013. Variation of amino acids in white and red meat of skipjack tuna (*Katsuwonus pelamis*) caught from arabian sea. *International Journal of Innovative Research in Science, Engineering and Technology*, 2(7), pp.2843-2846.

18. James, R. and **Vineeth Kumar, T V.**, 2012. Study on the prevalence of thyroid diseases in Ernakulam city and Cherthala town of Kerala state, India. *International Journal of Scientific and Research Publications*, 2(2), pp.1-3.
19. Thomas, P., **Vineethkumar, T.V.**, Reshmy, V., Kumar, K.S. and George, S., 2012. A mini review on the antimicrobial peptides isolated from the genus *Hylarana* (Amphibia: Anura) with a proposed nomenclature for amphibian skin peptides. *Molecular biology reports*, 39(6). <https://doi.org/10.1007/s11033-012-1521-3>
20. **Vineeth Kumar T. V**, Sebastian P. A **2011**, A Comparative Study on the Effect of Preservatives on Mitochondrial DNA of the Spider *Hippasa agelenoides* (Araneae : Lycosidae). **Journal of the Zoological Society of Kerala**. ISSN 0971 – 197 X.V

### **BOOKS PUBLISHED**

- Vineeth Kumar T.V, Chapter contribution, Ecophysiology of Man, Zoological Society of Kerala, 2019
- Vineeth Kumar T.V, Chapter contribution, Nutrition Health and Life style Management
- Vineeth Kumar T.V, Remya James and P. A. Sebastian, 2012. ‘Effect of Preservatives on mitochondrial DNA’. LAP Lambert Academic Publishing.
- Remya James, VineethKumar T V and Susheela Mathew, 2012. ‘Red Meat Or White Meat’. LAP Lambert Academic Publishing.

### **List of Conference Presentations**

- **Vineeth Kumar T V** and George S. Frog Skin Host Defense peptides as Antimicrobial. International conference on Multidisciplinary Research, St Albert s College, Cochin, 11<sup>th</sup> January 2019.
- **Vineeth Kumar, T. V.** and George, S. Anti-nociceptive and Antimicrobial Peptides Isolated from the Skin Secretion of an Endemic Frog from the Western Ghats. International Conference on Ecosystem Conservation, Climate Change and Sustainable Development (ECOCASD). Thiruvananthapuram, October 2013.
- **Vineeth Kumar, T. V.** and George, S. Anti-nociceptive and Antimicrobial Peptides Isolated from the Skin Secretion of an Endemic Frog from the Western Ghats. International Conference on Green Technology (ICGeT 2013). Sastra University, Thanjavur, Tamil Nadu. 26-27 July 2013.

- **Vineeth Kumar, T. V.**, Kumar, K. S. and George, S. Host Defense Peptides from the Skin Secretion of Endemic Frog of Western Ghats. 4<sup>th</sup> Indian Peptide Symposium organized by Indian Peptide Society (IPS), Saha Institute of Nuclear Physics, Kolkata. 16-22 February 2013.
- **Vineeth Kumar, T. V.**, Thomas, P. and George, S. A Systematic Nomenclature for Amphibian Antimicrobial Peptides. International Conference – ORIBIO. Thiruvananthapuram, February 29, 2012.

## **SELECTED SKILLS AND TECHNIQUES**

### **Molecular Biology Techniques**

- RNA and DNA Isolation
- Poly A<sup>+</sup> RNA selection
- cDNA synthesis
- cDNA library construction and cloning
- 5' and 3'RACE
- PCR: standardization and amplification
- DNA sequencing

### **Protein Biochemistry Techniques**

- HPLC
- Manual Solid phase peptide synthesis

### **Bioinformatics: Attended Summer School on 'Comparative Genomics and Proteomics in Drug Discovery'**

- Multiple sequence alignments: Bioedit, Geneious.
- Tree building: Geneious, MEGA
- Protein sequence analysis tools

**Computer Skills:** Word processing, Spread sheets, databases.

**Languages known:** Bilingual English/Malayalam and conversational in Hindi and Tamil.

## **REFERENCES**

### **Dr. Sanil George**

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Rajiv Gandhi Centre for  
Biotechnology  
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### **Dr. A. K. Prema**

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## **Personal Details**

1. Age & Date of Birth : 36, 07 April 1987
2. Sex : Male
3. Marital status : Married
4. Spouse Name : Remya James
5. Name of Father : Vasanth Kumar T V
6. Nationality : Indian
7. Present address : Thundi Parambil, 19-447B  
Water land road, Variams junction  
Athira lane, Palluruthy  
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## **Declaration**

I hereby declare that the information given above are true to the best of my knowledge.



Date: 01.07.2023  
Place: COCHIN

Vineeth Kumar T V. PhD